

Providing emergency medical care in a National football League stadium: analysis of patient load data.

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Introduction:

According to the American National Association of EMS Physicians, organized emergency health services should be provided for spectators but also for participants at events gathering people at a specific location for a defined period of time. The Heysel stadium disaster brought the importance of developing such mass gathering action plans. Indeed, football matches by nature makes each match a significant mass gathering event. The analysis of potential patients presentations and load could help emergency medical team in planning their mass gathering medical care plans.



Methods:

Since 2008-2009, the Liege University Hospital Centre ED collaborates with the Standard of Liege professional football club for emergency medical assistance. We recorded data concerning consecutive patients clinical presentations and report our experience of last 3 seasons.

Table 1: Distribution between trauma and medical patients according to triage score.

	U1 (N=17)	U2 (N=70)	U3 (N=451)
Trauma	1	2	287
Medical	16	68	164

Results:

The stadium accounts for 28808 places. Medical care is provided in a specific location into the stadium. A medical vehicle and 2 ambulances are available. For low risk events, 65 first-aid workers from the Belgium Red-Cross, an emergency physician and a nurse compose the medical team, under the authority of an emergency physician qualified in disaster medicine. In high-risk event, 2 emergency physicians and nurses are required, in addition with 4 ambulances and 85 first-aid workers.

During the last 3 seasons, emergency medical assistance was provided for 70 events. We recorded 538 on-site admissions (Mean 180 [160-190]/year), distributed into 17 U1, 70 U2 and 451 U3 patients. Among the U1 patients, 2 eventually died: one on site and the other one after medical transfer to hospital. Hospital transfer was required for 26 patients. Details concerning the patients are depicted in Table 1 and 2

Table 2 : Pathologies and outcome for the 26 patients transferred to hospital .

	Cardiology (N=10; 38.5%)	Trauma (N=3; 11.5%)	Neurology (N=6; 23.1%)	Intoxication (N=7; 26.9%)
Hospital	5 (50%)	1 (33%)	2 (33%)	4 (57%)
ICU	2 (20%)	0	0	0
Discharge after ED	2 (20%)	1 (33%)	4 (67%)	3 (43%)
Death	1 (10%)	1 (33%)	0	0

Conclusion

Football events occurring in large stadium are high-risk events. Collecting data may help evaluate the specific risk factors for patient's presentations and develop specific football-gathering medical-care plans.